FUNDING OF NON-POINT SOURCE PROGRAM'S "STORMWATER UTILITIES" THE GRIFFIN EXPERIENCE

Brant D. Keller

AUTHOR: Executive Director, Georgia Association of Stormwater Management Agencies, 824 South Hill Street, PMB 319, Griffin, GA 30224.
REFERENCE: Proceedings of the 2001 Georgia Water Resources Conference, held March 26-27, 2001, at the University of Georgia. Kathryn J. Hatcher, editor, Institute of Ecology, the University of Georgia, Athens, Georgia.

Abstract. At the 1999 Proceedings of this conference, the City of Griffin presented a paper on the first "Stormwater Utility" in the State of Georgia, a non-structural best management practice. The utility was created to give the City of Griffin the dedicated funding source needed to compliment the additional funding sources in its Stormwater management program. Flooding, impaired waters and wom out infrastructure topped the extensive list of challenges presented to their community. The Stormwater Utility was chosen as the funding method best suited to meet the City of Griffin's needs. A Stormwater Utility, like sewer or water supply systems, is user oriented with the costs being allocated based on services received. (Debo, Reese, 1995)

It is the purpose of this presentation to follow up on Griffin's progress of their Stormwater Utility and promote the supplemental funding sources available for local governments: for which they can take advantage. Thus allowing them to work towards achievement non-point source issues, water quality and Stormwater infrastructure projects.

Conclusions have shown, that by creating a dedicated funding source, the "Stormwater Utility" as part of the Stormwater program, can inspire and lead to potential, additional revenue sources. The utility provided the necessary funding for; inventory collection and GIS mapping, H/H (hydrologic and hydraulic) modeling, watershed assessments and capital improvements planning. This also funds the operation and maintenance of the Municipal's Separate Storm Sewer System operated and controlled by the City of Griffin.

The focus of this presentation is to make water resource management professionals more knowledgeable and better informed of the potential funding opportunities for their Stormwater Management Programs. The term Stormwater management provides euphoniums for a broad range of related topics such as erosion control, flood plain management, wetland mitigations, detention/retention, and drainage facility design (Pyzoha, 1994)

INTRODUCTION

In 1972, the U.S. Congress passed the Clean Water Act, with the stated objective to restore and maintain the chemical, physiological and biological integrity of the nation's waters through point source and non-point source controls. One of the measures created to achieve this was the National Pollution Discharge Elimination System (NPDES) program. The program was created to ensure that permitted discharges met applicable water quality standards. This program was created in tiers consisting of Phase I and Phase II. Point source programs for water and wastewater treatment operations had already been introduced, implemented and working.

Georgia's Water Quality has quite a few challenges; 746 TMDL's, 50 to 70 potential NPDES Phase II communities, up grades in the water and wastewater treatment facilities, stream and wetland mitigation issues are just to name a few. The financial burden falls on local governments to achieve sustainable water and good water quality.

The City of Griffin is included in the Phase II program of NPDES and Griffin also has a listed stream segment on the 305 (b) list of the TMDL program. Compound this with the worn out infrastructure and flooding issues, Griffin looked to a Stormwater Utility for the development of a Stormwater Management Program. A dedicated and stable funding was needed, thus, the "Stormwater Utility was created, Georgia's first. It only made sense to complete the trilogy: Water, Wastewater and now Stormwater. In the past, many communities funded water and wastewater operations through the general fund. As utilities developed and quantifiable units of measurement followed, so did the concept of user fees. These are calculable units of measurement developed through engineered design models.

The "Stormwater Utility" has demonstrated and continues to received additional non-point source funding through; Revenue Bonds, 319(h) Grants,

Special Purpose Local Option Sales Tax (SPLOST), Hazardous Mitigation Grants (HMG), Clean Water State Revolving Loan Fund (SRF) monies, Surface Transportation Program monies (TEA-21), Stream Restoration Mitigation Bank, and a sundry list of other funding options.

The following information is presented, so that professional watershed managers can benefit from workable financial solutions already utilized by others in the field. With the advent of Griffin's Stormwater Utility, Griffin is well on its way to complying and surpassing the intent of the Clean Water Act. Equally as important, Griffin is sensitive to being a good neighbor to the recipients of discharged water down stream from other folks in the watershed. The Stormwater Utility is leading the way, to achieving the "Holistic Approach to Watershed Management". The City of Griffin considers itself a leader and a pioneer in the areas of Stormwater Management and now in research of water quality enhancement (Feldner, 2000).

STORMWATER UTILITIES (SERVICE CHARGES)

Stormwater Utilities are developing through the course of time, as have the water and wastewater user fees. Historically, Stormwater management has been financed with revenues from property taxes. Runoff puts significant demand on our Stormwater management systems. It is quantifiable in measurable runoff units. The Stormwater user fee system provides a dependable, equitable and stable funding source necessary for the financing of our service delivery system. It insures equitable distribution of costs, while providing a management tool to guide the program. These programs are tailored for the specific Stormwater management needs of the community as directed in the feasibility studies conducted. Water quantity and water quality have been and will be required to address continual maintenance and the replacement of system segments. They will wear out and will require maintenance on a regular period.

Through the utility, a program will be developed and the ratepayer will only pay for the demand that his/her property places on the system. A utility generally is developed with the following components addressed: institutional considerations, rate analysis developed, exploration of all additional possible revenues identified, their uses and allocations, the actual creation of the utility and the inclusion of public information programs to support the program.

Example. City of Griffin

In 1992 the City of Griffin was faced the challenges of undersized infrastructure, the lack of storm drainage systems, and the condition of the system was in bad repair. Furthermore, Griffin had been identified as a NPDES Phase II candidate and the City was identified as a contributing source to a listed stream segment under EPA 303 (d). Griffin began to investigate their options for funding of the non-point source program. After do diligence and several years of program review, the City of Griffin concluded that the best way to establish a permanent program was to create an enterprise fund and establish a Utility in 1998, Georgia's first.

The Stormwater Utility has paved the way for GIS Inventory and mapping, Hydrologic and Hydraulic modeling, Watershed Assessments and Capital Improvement Planning, not to mention the daily operation and maintenance of the storm sewer system. This proactive approach to dedicated funding has enabled Griffin to pursue other support funding sources and revenues.

The Utility produces a revenue stream of 1.3 million dollars annually. Its user fee is set at $2.95/ERU and the Equivalent Residential Unit is 2200 square feet. The system has around 35,000 ERU's. The Utility has no exemptions and also has a credit mechanism for detention, education and soon to be water quality. The utility is supplemented with many of the revenues sources identified in this article.

STORMWATER REVENUE BONDS

Generally, these bonds provide the funding for building of infrastructure, the assets of a Stormwater system. A Stormwater utility in most cases is used as the identified dedicated revenue stream for which the ability to pay back the bonds is cited. Revenue bond investors such as, Moody, Standard & Poor as well as many others, review the utilities ability and willingness to repay the debt as occurred.

These bonds are reviewed utilizing four guidelines: current and future debt position, experience of financial performance, economic strength of the service area, and management's abilities to operation the system and conduct pay back of the debt. In most cases, the local government has established an enterprise fund financed through the creation of a Stormwater utility. To successfully secure Stormwater revenue bonds, a utility should have developed a Stormwater master plan, capital improvements plan and a history of collection.

These three factors will demonstrate the calculated need, as well as, identify the net revenues required to pay back the acquired debt. This debt service usually is structured to be paid back over a period of 10 to 20 years.

Example. The City of Griffin has 5 million dollars of projects assembled for the issuance of revenue bonds.

319(h) GRANTS (NON-POINT SOURCE IMPLEMENTATION GRANTS)

These are formulated grants provided to the states to implement non-point source projects and programs in accordance with section 319 of the Clean Water Act. Project examples are implementation of Best Management Practices (BMP's) in agricultural settings, implementation of BMP systems for lake, estuary and or stream watersheds, or basin-wide education programs.

These grants are funded federally to the amount of 60% with a local match of 40%.

Example. The City of Griffin Constructed Wetlands in an Urbanized Area

Griffin acquired 5.5 acres for a regional detention pond and water quality treatment chain. The facility holds 1,000,000 gallons of water and the pond has constructed wetlands on the interior and natural wetlands outside the outlet structure. The Stormwater management facility treats over 180 acres of urbanized runoff.

SPECIAL PURPOSE LOCAL OPTIONS SALES TAX (SPLOST)

This funding option is available in several states. The tax is called for in an election by the county for the purpose to collect a 1% sales tax for designated projects. The tax levied for a period not to exceed 5 years. A designated list of projects is developed, marketed and presented on the ballot. The sales tax must go to those items structured on the referendum.

Sales tax revenues can be used either to directly fund capital projects or to provide debt service for bonded improvements over short retirement schedules. SPLOST cannot be used to pay for traditional operation expenses.

Example. The City of Griffin Regional Detention Project

The City of Griffin was approved at 1 million dollars funding to construct a regional detention facility with the tax.

HAZARDOUS MITIGATION GRANT PROGRAM (HMGP)

The purpose of this funding source is to provide financial assistance to state and local governments for projects that reduce or eliminate the long-term risk to human life and property from the effects of natural hazards. The grant program has eligibility of 75% federal and 25% local contribution. The non-federal share may be met with local cash, contributions, or certain other grants such as Community Development Block Grants (CDBG's) or with in-kind services. The Federal Emergency Management Agency (FEMA) makes the final decisions on projects but the state agencies administer the program. Projects such as: acquisition of property, retro fittings of buildings, development of standards with implementation as an essential component, structural hazard control or protection measures such as dams or sea walls.

Example. The City of Griffin 340 LF Triple 7x7 Culvert N. Lyndon Basin

Griffin had a major collector with a traffic count of over 75,000 vehicles a day. During significant storm events this road would flood and cut off emergency vehicles for an extended period of time. Furthermore, the water was backing up into the upper basin and flooding homes and businesses. Griffin demonstrated the need to mitigated one-business and review mitigations in the future.

CLEAN WATER STATE REVOLVING LOAN FUND (SRF)

The Clean Water Act of 1987, Section 606 requires each state to prepare annually an Intended Land Use Plan identifying the use of funds in the Clean Water State Revolving Loan Fund and it describes the use for which they support the goals of SRF. These funds are low interest loans carrying a small fixed interest rate of 3-4% and the closing cost. Non-point source funds may be utilized for major capital equipment; capital projects and associated engineering costs related to the projects.

Example. The City of Griffin

The City was awarded a 2.67 million dollar loan for five capital construction projects and a major piece of Stormwater equipment.

SYSTEM DEVELOPMENT CHARGES

This funding mechanism is sometimes referred to as a capital recovery charge. It is designed for utilities or local government to recover its fair share of previous public monies in excess of the infrastructure capacities. The system development charge provides for deferral of participation in the capital costs until a particular piece of property associated with the system, is developed and it utilizes the systems capacity. This capacity was calculated and built into the system for future use.

These costs can be calculated growth related projections, system buy-ins, marginal incremental cost or value of service derived. Operating expenses usually are not part of the formula, only capital costs.

IMPACT FEES

This financial tool is available to some, but it is a highly litigated issue across the nation. Communities applying impact fees must develop a sound and rationale module, quantifiable by proven numbers to implement the fee. Justification and do diligence is definitely the key to successful implementation.

STREAM RESTORATION MITIGATION BANK

This is a relatively new financial tool in the funding list. It will gain wider acceptance as watershed management and development continue to occur. This can be a public tool or a public/private relationship. Communities assess their streams for restoration, preservation and enhancement. The plan is then submitted to the Corp of Engineers for approval and the establishment of the bank. If local governments develop the bank solely, then they will sell the credits for the restoration of the stream segments. If a partnership is established, then a bank is created and credits sold for development of the stream-bank program. There are also other sundry ways to develop this type of program funding tool.

Example. The City of Griffin's Bank was established for Public/Private Relationship

A private contractor is developing the bank administration and will sell the credits. The City of Griffin will be the recipient over a 15-year period to receive 6.6 million dollars for restoration, preservation and enhancement of 84,129 feet of stream segments, along with 10% of the credits for its future use in their projects.

SURFACE TRANSPORTATION PROGRAM (TEA-21)

This program is federally funded and can be used by local governments for any roads that are not functionally classified as local or rural minor collectors. Each state sets aside funds for transportation enhancements, which can include but not limited to such activities as wetland mitigation and implementation of control technologies to prevent polluted highway runoff from reaching surface water bodies. This program also funds other enhancements not related to watershed related projects. Eligibility for this funding can be for local government, profit and non-profit entities, and colleges and universities. The funding is usually 80% federal funding and 20% local match.

Example. The City of Griffin's BMP Evaluation of Pollutant Removal Systems of a State Highway System

This is a two-year project designed to establish baseline data on a listed stream segment of the 303(d) list. The project will construct BMP's, and test for pollutant removal efficiency of the systems either as stand-alone or in a treatment train.

CONCLUSION

There are numerous other funding mechanisms available to contemplate using for Stormwater management programs such as review fees, inspection fees and several others. Additionally, there are a numerous publications on public/private relationships assisting in either financial or in-kind programs. Two important documents, which can start your program in the right direction for supplemental funding in Stormwater Management program, are "Catalog of Federal Funding Sources for Watershed Protection" EPA841-B-97-008 and the "Directory of Funding

Sources for Grassroots River and Watershed Conservation Groups 1999-2000" River Network, just to name a couple.

Traditional funding approaches are a thing of the past. The key to acquiring funding either traditionally or creatively will be your ability to educate and promote a "non-traditional program".

As professionals, we will get better at promoting our programs. This will make for keen competition and less monies to go around for the many programs being established. Staying alert and on the edge will allow for innovative thinking. Keep looking daily for your options and be creative when trying to fund the atypical creature called "Stormwater".

RELATED BENEFITS

Two years ago the City of Griffin's presentation recommended that a statewide association be created to assist with the dissemination of Stormwater management related information and funding opportunities for the rest of the State. The association would provide the necessary guidance and leadership to community leaders statewide and address the challenges of effective watershed management. Today through the assistance of the City of Griffin, the Georgia Association of Stormwater Management Agencies has been in existence for over a year. The Agency has made numerous presentations to State and local groups on Stormwater management. Three stormwater utilities currently exist throughout the State and four more are in the development stages. The City of Griffin and the Georgia Association of Stormwater Management Agencies are truly making a difference in Stormwater related issues in the State.

RECOMMENDATIONS

Continued pursuit of alternative funding sources should be explored and supported through various water related associations such as; the ACCG, GMA, GASMA, Georgia Rural Water Association, Georgia Water Pollution Control Association, Georgia EPD, DCA, RDC's.

ACKNOWLEDGEMENTS

Special thanks to my mentor, Hector J. Cyre, Ross King's support and Ron Feldner's dedication to keep me on track.

LITERATURE CITED

Debo, Thomas, N. and Reese, Andrew, J. 1995 *Municipal Stormwater Management*

Pyzoha, David, S. 1994 *Implementing a Stormwater Management Program*

Feldner, Ronald A, 2000 *North Griffin Detention Pond Submittal*